LArSoft minutes, 28-Sep-2011. -- Eric Church

LArSoft minutes appear at https://cdcvs.fnal.gov/redmine/projects/activity/larsoftsvn. (The location presumably at which you found these!) For further details of matters reported here drill down into the wiki, etc, at that redmine site. Everyone is welcome to attend the bi-weekly meetings. Next meeting will be 12-Oct-2011. It will be back in the Racetrack, 7X0. BjpJones will discuss Physics Lists and Processes in G4. Kinga will discuss her latest clustering stuff.

There are pdfs from Eric and Andrzej in the Documents link on redmine.

Eric gave a pedagogic description of how the detector electronics simulation works, vis-a-vis uBooNE. We leave details for the interested reader on the pdf, but this was a long overdue discussion that people seemed to appreciate for shedding light on this matter. It's not terribly complicated physics-wise, but with all the coding undocumented it has been rather inscrutable. Consider the problem explained and this to be the documentation for the DetSim and CalData packages. It was urged that we turn this into a tech note. That day will come -- later if not sooner. In that note we described the uBooNE Laplace transform that Chen at BNL had handed us. Since yesterday that transform has been successfully inverted by Georgia, and it is seen to yield the 1 musec pulse that BNL had advertised! Yay. So, Georgia has all the parts necessary to get SimWireMicroBooNE.cxx,h and CalWireMicroBooNE.cxx,h coded up. Watch this space.

Andrzej showed some nice new EventDisplay features he's added for the sake of hand scanning efforts. Very nice work. We leave details in the pdf and the EVD itself, especially as this is best seen by firing up the EVD and giving it a whirl.

We discussed the cosmics generator CRY, and Brian urged that people exercise it. We know David K at Columbia has done some work here. Adam was doing some work, but has moved on from it. Eric urges that uBooNers in particular get serious about learning to overlay cosmic events and GENIE events in the LArSoft evt simulation. uBooNE will have to deal with the non-trivial problem of cutting out tens of cosmics from every single neutrino event in the data, and Eric is not sure why people from uBooNE aren't stampeding over one another to begin this work in the simulation. We know Kristina at Yale is embarking on something like this. She'll begin by verifying a few kHz-ish rate of muons streaming through the uBooNE TPC.

We went around the room and got short summaries of the various LArSoft reconstruction algos. We urge presentations of progress on any and all algorithms, even slides where we can do some strategizing to help the algorithm authors.

There is a subgroup doing EVD hand-scan observations with numuCC, nueCC and numu NC GENIE evts in the uBooNE detector at LBNE-ish energies. We look fwd to a report from them in a forthcoming mtg.

Details for the next meeting:

```
>>> video: 85LARSW
>>> phone: 510 423 9220 (ID 85LARSW)
>>> fnal location: Racetrack, 7th floor x-over
```